

REMARKS

This Amendment is in response to the Office Action mailed on February 25, 2003 in the above-identified application. Reconsideration of the above-identified application is respectfully requested. Claims 35-40 are currently pending. The Examiner has rejected all of the claims under 35 U.S.C. § 102(b), § 112 second paragraph, and § 103(a).

Claims 35-37 have been amended to address the Examiner's § 112, second paragraph concerns. Claims 38-40 have been deleted. No new matter has been added as a result of these amendments.

Rejection under 35 U.S.C. § 112, first and second paragraph.

Applicants acknowledge the Examiner's concern regarding the lack of disclosure in the specification "of a specific antibody that would be able to distinguish specific structures for TSE-infected B-cell antigen or a TSE-infected T-cell antigen" (Paper number 25, page 5).

Applicants have amended the claims to recite a method where the abnormal form of PrP^C, namely PrP^{SC}, is identified by taking advantage of its resistance to proteinase K digestion. Any form of PrP^C remaining in the cells after digestion with proteinase K will be a proteinase K-resistant PrP^C. Applicants submit that those skilled in the art will understand that the presence of the remaining "abnormal" proteinase K-resistant form of PrP^C, namely PrP^{SC}, will be recognized by anti- PrP^C antibodies.

Support for this resistance is found in the specification beginning on page 12 last paragraph, through page 13, line 3. Moreover, Figure 10 illustrates that PrP^{SC} levels can be detected in infected T-cells and infected B-cells in a Western blot after proteinase K digestion. In addition to Western blotting, EIA Microtiter assay and Microparticle Enzyme Immunoassay can be used to detect PrP^{SC} levels in such infected cells.

Therefore, Applicants submit that when read in light of the specification, the claims, as amended, adequately and distinctly define the boundaries of the subject matter that Applicants regard as the invention.

In view of the above arguments, Applicants respectfully submit that the rejection of claims 35-37 under § 112 is now moot and should be withdrawn.

Rejection of claims 35-40 under 35 U.S.C. §103(a)

Claims 35-40 are rejected under 35 U.S.C. §103(a) as obvious in view of O'Rourke *et al.*, and/or Korth *et al.*, in view of Kurida *et al.*, and/or Manuelidis *et al.* Applicants respectfully traverse this rejection.

Applicants respectfully submit that the Examiner has erred as a matter of law in combining the above-identified references to reject claims 35-40 as these references fail to teach or suggest their combination either implicitly or explicitly.

The present invention discloses a method for identifying TSE-infected B- and T-cells using an anti-PrP antibody after the cells have been subjected to proteinase K digestion, which permits the detection of only altered PrP^c, namely PrP^{SC} which is resistant to such digestion.

O'Rourke *et al.* disclose diagnostic assays for detecting PrP^{SC} in fixed or frozen tissue sections. The assay employs the third eyelid lymphoid tissue to detect PrP^{SC} in ruminants (cattle, sheep, mule deer, elk, etc.) using monoclonal antibodies that bind to a conserved epitope on the ruminant PrP proteins in fixed or frozen tissue. As admitted by the Examiner, O'Rourke *et al.* fail to teach a method that involves the steps of collecting B cells and/or T cells from a test sample and then directly testing these cell types for the presence of PrP^{SC} associated with transmissible spongiform encephalopathy. As it stands, O'Rourke *et al.*'s teachings do not suggest that their assay is applicable for humans or to other animals that lack a nictitating membrane.

Korth *et al.* describe a monoclonal antibody, 15B3, which the authors claim can discriminate between the normal and disease-specific forms of PrP in brain homogenates. As with O'Rourke *et al.*, the Examiner admitted that Korth *et al.* fail to teach a method that involves the steps of collecting B cells and/or T cells from a test sample and then directly testing these cell types for the presence of PrP associated with transmissible spongiform encephalopathy.

Kuroda *et al.* and/or Manuelidis *et al.* teach that the infective agent of transmissible spongiform encephalopathy is a virus, and that CJD may have a hematogenous way of dissemination. Collectively, these references present evidence that

when blood or tissues from infected animals are inoculated in non-diseased recipients, the recipients become infected.

The mere fact that the teachings in O'Rourke *et al.*, Korth *et al.*, Kuroda *et al.* and/or Manuelidis *et al.*, can be modified or combined does not establish a motivation or suggestion to combine these references and does not make the resulting combination *prima facie* obvious. None of these references, alone or in combination, suggest the desirability, or provide a reasonable expectation of success, of detecting abnormal PrP^{SC} in T-cells or B-cells.

Accordingly, Applicants respectfully request the withdrawal of the rejection under § 103.

Should the Examiner have any questions concerning the above, she is respectfully requested to contact the undersigned at the telephone number listed below. If any additional fees are incurred as a result of the filing of this paper, authorization is given to charge deposit account no. 01-0025.



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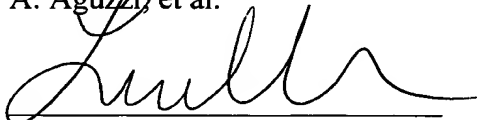
ABBOTT LABORATORIES
Telephone: (847) 935-7550
Facsimile: (847) 938-2623

Wood, Phillips, Katz, Mortimer & Clark
500 West Madison Street
Suite 3800
Chicago, IL 60662-2511
Phone: (312) 876-2109
Fax: (312) 876-2020

Respectfully submitted,
A. Aguzzi, et al.

Mimi C. Goller
Registration No. 39,046
Attorney for Applicants

Respectfully submitted,
A. Aguzzi, et al.



Lisa V. Mueller
Registration No. 38,978
Attorney for Applicants